

First Report of *Fusarium proliferatum* Causing Rot of Garlic Bulbs in Spain

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In October of 2008, decayed garlic bulbs (*Allium sativum* L. cv. Blancomor de Valledado) were received from a producer in Segovia, Spain. In November of 2009, similar symptoms were observed on stored bulbs (cvs. Blancomor de Valledado and Garcua) from each of 30 municipalities in northwest Segovia and Valladolid. A minimum of one sample was collected from 12 localities. Pieces of symptomatic bulbs were surface disinfested for 2 to 3 min in 0.5% NaOCl and transferred to potato dextrose agar (PDA) and Komada's media. Colonies had catenate microconidia and curved macroconidia that were usually three to five septate. Microconidia were club shaped with a flattened base, aseptate, and were produced on both mono- and polyphialides. On the basis of morphological features, the fungus was identified as *Fusarium proliferatum* (T. Matsushima) Nirenberg (2,3). Pathogenicity tests were conducted with 12 isolates of the fungi following the method of Dugan et al. (1). Each assay with an isolate consisted of six cloves (cv. Blancomor de Valledado) disinfested in 0.5% NaOCl for 45 s, rinsed with sterile water, and injured to a depth of 4.5 mm with a probe 1 mm in diameter. The wound was filled with PDA colonized by the appropriate isolate. Six cloves for each tested isolate received sterile agar as a control. The cloves were incubated at 25°C for 5 weeks. The test was repeated once with cv. Garcua. All isolates produced water-soaked, tan lesions. An isolate of the fungus was deposited in the collection of the Plant Production Department of the University of Almería. No fungi were recovered from the control cloves. *F. proliferatum* has been reported on garlic in the northwestern United States (1) and Serbia (4). To our knowledge, this is the first report of a *Fusarium* sp. in the section *Liseola* attacking garlic in Spain. The fungus seems to be well established on this host in Spain.

References: (1) F. M. Dugan et al. *Phytopathology* 155:437, 2007. (2) P. E. Nelson et al. *Fusarium* Species: An Illustrated Manual for Identification. Pennsylvania State University Press, University Park, 1983. (3) H. Nirenberg et al. *Mycologia* 90:434, 1998. (4) S. Stankovic et al. *Eur. J. Plant Pathol.*